The Journal of Laryngology and Otology
March 1996, Vol. **110**, pp. 277–278

Intraductal papilloma as a cause of a parotid duct cyst. A case report

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Abstract
A case is presented of a rare intraductal papilloma being found simultaneously with a parotid duct cyst, which is a relatively common parotid disorder. The papilloma most probably played a significant role in the obstruction of the duct and thus caused the ductal cyst. Intraductal papillomas have been mostly described in minor salivary glands, but are rare in the parotid gland.

Key words: Papilloma, intraductal; Parotid diseases

Introduction

Parotid duct cysts are relatively common, and they are usually treated with a partial or even total resection of the parotid gland. These changes are benign, and an operation is therefore not always performed, particularly if the patient is symptomless or his/her general condition is not good enough for an operation.

Intraductal papillomas are rare tumours reported to be found primarily in small salivary glands (Abbey, 1975; Franklin and Ong, 1991). There is one earlier report of an intraductal papilloma in the parotid gland, which was regarded as the possible origin of an adenocystic carcinoma (Shiotani *et al.*, 1994).

We report a patient with an intraductal papilloma of the parotid gland, that manifested as a parotid duct cyst.

Case report

A 50-year-old woman, who had no other significant medical history, was referred to the ENT Department of the Oulu University Central Hospital with a two-year history of a slowly growing painless lump at the right mandibular angle. On physical examination, a 2 × 2 cm round tumour was observed at the cauda of the right parotid gland. Facial nerve function was normal. Ultrasonography showed a typical cyst of measuring approximately 1 cm with some solid components in its ventral part. Two fine needle aspiration biopsies were obtained and the cytological appearance was suggestive of a benign cyst.

A standard superficial parotidectomy was performed. A cystic tumour which contained brown liquid was found in the superficial lobe. A histological examination of a frozen section taken during the operation showed only a fibrotic cyst wall with a few inflammatory cells. Microscopical sections of the resected parotidectomy material showed a dilatated duct, 7 mm in diameter, containing a papillary projection, 4 mm in diameter, in the lumen (Figure 1a). The papilloma was composed of microcystic glandular structures surrounded by benign cuboidal epithelial cells (Figure 1b). The pathological diagnosis was benign intraductal papilloma.

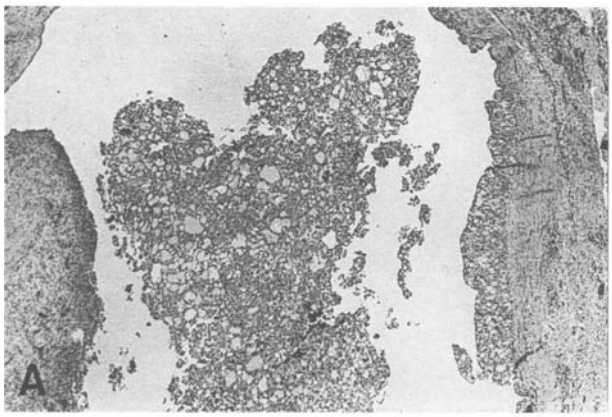

Fig. 1a
A dilated salivary gland duct contains a papillary projection showing a microglandular architecture. (H & E; × 12).

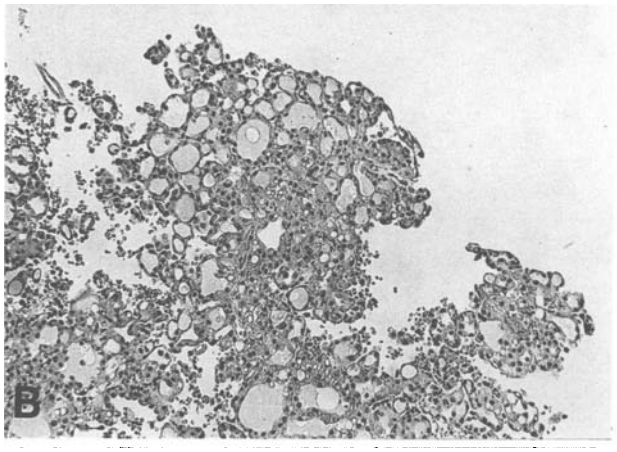

Fig. 1b
Microcystic glandular structures of the papilloma are surrounded by benign cuboidal epithelial cells. (H & E; × 86).

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Accepted for publication: 16 December 1995.

The immediate recovery was uneventful, but two weeks after the operation the patient had fever and a painful lump emerged in the operation area. The lump fluctuated in size and clear fluid was obtained by needle aspiration. The cytological appearance of the aspirate revealed inflammatory cells, but no epithelial component was seen. The patient was given sulphadiazine-trimethoprim orally, and the cyst disappeared after four successive aspirations. Three months after the operation there were no signs of recurrence.

Discussion

In this case, a rare intraductal papilloma was found simultaneously with a parotid duct cyst, a relatively common parotid disorder. The cyst was lined by duct epithelium and contained mucous secretion. The papilloma most probably played a significant role in the obstruction of the duct and thus caused the ductal cyst. Intraductal papillomas have been mostly described in minor salivary glands, but are rare in the parotid gland (King and Hill, 1993; Shiotani *et al.*, 1994). Ultrasonography and fine needle aspiration biopsy offered no help in diagnosis, because the papilloma was too small to be detected by them. The accuracy of fine needle aspiration biopsy may be poorer in cystic salivary gland lesions than in solid ones, because a small intraductal obstructing tumour is easily missed as in this case.

A malignant tumour may originate from a salivary gland papilloma (Shiotani *et al.*, 1994), possibly manifesting only as a ductal cyst. Operative treatment of benign cysts is therefore important. If, for some reason, surgery is not the treatment of choice, e.g. the patient's overall condition is poor, long-term regular check-ups should be arranged.

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